CLASS VI SATURATION HEIGHT FUNCTION

ELK HILLS 26R PROJECT

Saturation Height Function

Initial hydrocarbon saturation is modeled using centrifuge, porous plate, and mercury injection core analysis results. Data from 5 wells was compiled and used to derive a single equation across the range of rock quality sampled. The height function (shown below) is derived from permeability, which is a function of porosity and clay volume and therefore believed to be the best representation of rock quality.

Saturation Height Function = (1.48137 - 0.5747 * Log((8860+TVDSS) * 0.06503) - 0.0671 * Log((8860+TVDSS)*0.06503)^2 + 0.0316 * Log((8860+TVDSS) * 0.06503)^3) / (KA^0.17271)

The Monterey Formation 26R reservoir is depleted. As such the following were inputs for computational modeling.

	Gas Cap	Oil Band	Water Zone
Contact (depth sub-sea)	Gas - Oil <5,630	Oil - Water 5630-6,040	> 6,040
Saturation (fraction)	Oil: 15% Water: 33.7% Gas: 51.3%	Oil: 37.1% Water: 25% Gas: 0%	Water: 100%